XIO3

GCACE

Garden City Atari Computer Enthusiasts

1003 Amphion St. Victoria, B.C. Canada V8S 4G2

SUMMER 2000

ATARI News and Rumours

by Rowland Grant

Atari may be somewhat dead but it's not forgotten. I noticed people wearing Atari T-shirts recently, even here at the Oak Bay Starbucks egad! There is a small but faithful market for Atari Jaguar and Lynx games. In the last eight months Songbird Productions have released four games for the Jaguar: Protector, Soccer Kid, Hyper Force and Skyhammer. These games were originally commissioned by Atari but were never released. Songbird also acquired complete rights and source code to the Virtual VCS. This emulates the classic Atari VCS (or 2600) game console on the Jaguar platform. A number of games for the Atari Lynx hand held game machine are in production. Songbird is also sponsoring a contest for Lynx game programmers.

Battlesphere, the Jaguar game recently released by Scatalogic, has been very well received. I understand that Battlesphere has some of the best polygon graphics and animation ever seen on the Jaguar. The background music is varied and of high quality. Game control is excellent. BattleSphere is similar to Atari's Star Raiders in game plot and strategy. The original production run has sold out, but a second production run is being arranged. While the three members of Scatalogic believe that there is a market for Battlesphere on the PC, they have been unable to convince the video game publishers. So they are porting the game over to the PC themselves (running under Windows and possibly Linux). There are rumours that Hasbro is working on a PC version of Star Raiders.

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A new magazine, *Atari Today*, was advertised some months ago. It was to be released at the annual computer show in Stafford England, however the publisher withdrew. Nothing more has been heard about *Atari Today*. Recently the FaST Club has revived its magazine *ST Applications* with the new name *Atari Applications*. Finding contributors is the main challenge for the like of *Atari Applications*. Many of its expert and interesting contributors of the past have gone on to other computers. In April, Simon Osborne announced the closure of *ST Plus* magazine due to lack of interest, lack of time and other discouraging events. He did invite others to take over however. By the end of May, Simon had second thoughts. He agreed to continue *ST Plus* as a web based magazine which will be published in HTML format. This should be online by the end of June. Simon is looking for contributors and is setting up a mailing list.

Of course there are other Atari publications on the web. AONE publishes a weekly newsletter that is devoted to Atari affairs in particular, video games in general and selections of the most interesting computer news. More recently an Atari news section has appeared on the MacGorilla web site. MacGorilla began with news of Apple computers but expanded to include Amiga and Linux news. Thanks to the efforts of Dan Dreibelbis of Toronto Atari Federation, MacGorilla has added an Atari page with Dan as editor. This Atari page consists of a collection of news items that is updated regularly. Also while investigating MacGorilla I checked on Amiga news.

Gateway Computers bought the rights

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XIO3 is a publication of :
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MEMBERSHIP

Membership dues are $20 per family per year. Membership includes a subscription to this newsletter, access to a few hundred 8-bit public domain disks and 210 ST disks in our library and literally thousands of 8-bit and ST PD files on various CD-ROMS.

MEETINGS

Meetings are held in the Nellie McClung branch of the Greater Victoria Public Library at 3950 Cedar Hill Road (corner of McKenzie) on the fourth Thursday of each month. All meetings are at 7 pm. There is no meeting in the month of December.

EDITORIAL

People who write for this newsletter take a perverse pleasure in taking shots at your poor, humble and unassuming editor. Some of these shots, I must admit, are justified. As in the case of Rowland Grant making a snide remark that I don't read the articles I insert in the newsletter. He is not taking liberties here, as I failed to include his article TOSBOX, in the last newsletter. It is not the first time I have missed one of Rowland's articles and I offer my sincere apologies.

Doug Skrecky, on the other hand, refers in his article to the vodka bottles strewn around my house. He's right, but I am just saving them so I can return them to the liquor store for the deposit I pay on each one. This is not a substantial monthly amount, but I'm not about to start throwing them in the garbage can. A penny saved is a penny earned, and regarding my vodka bottle deposits, it amounts to a fair number of pennies. Please note that I never mention or make fun of Doug's plan to have his head removed from his body and frozen so he can have it attached to a new body when this becomes possible in the future. How much did that cost you, Doug?

Gord

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Programming	"	"
DOS & Operating System	"	"
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IBM's & Clones	Rowland Grant	598-3661
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PEEKing Around

by Gordon F. Hooper

... The summer doldrums have arrived, and nobody has been phoning me with scandals they've observed other GCACE members in, so we're going straight to jokes this time... If you can get yourself out of the gutter where you've been spying on fellow members, please phone GORD at 475-0857...

A guy walks into a shoe store and asks for a pair of shoes, size 8. The obviously well trained salesman says, "But sir, you take an 11 or eleven-and-a-half."
"Just bring me a size eight!" the man replies.
The sales guy brings them and the man stuffs his feet into them and stands up in obvious pain. He turns to the salesman and says, "I've lost my house to Revenue Canada, I live with my mother-in-law, my daughter ran off with my best friend, my business has gone bankrupt, and my son just told me he was gay. The only pleasure I have left is to come home at night and take my shoes off."

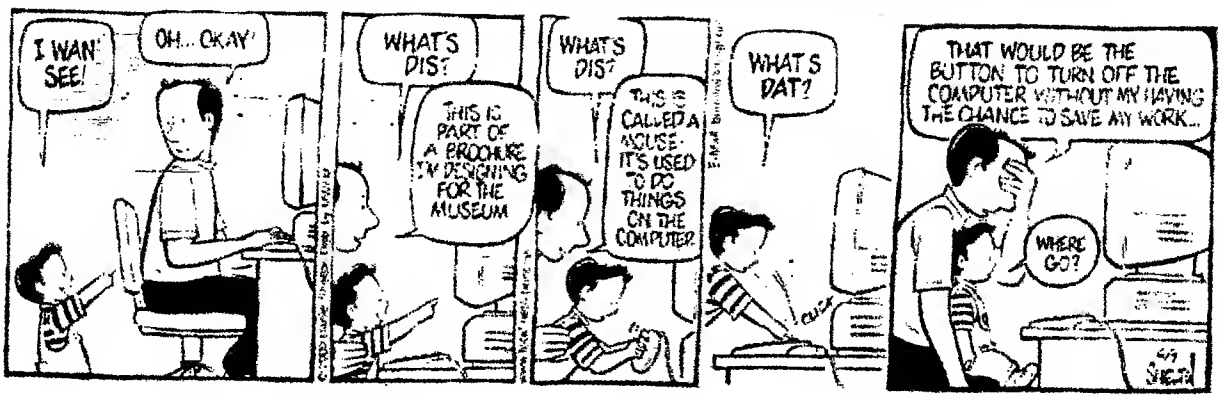
When Columbus came to North America, there were no taxes, no debts, and no pollution. The women did all the work while the men hunted or fished all day. Ever since then, a bunch of idiotic do-gooders have been trying to "improve" the place. (I'm sure the idiotic do-gooders were no doubt of the female persuasion. Editor)

Back in the Good Old Days, when Dudley Fudpucker was whooping it up in college, he was standing at a bar one evening, when a lady of enticing appearance approached him and suggested that they have a drink.
Dudley said, "Well, I'm no John D. Rockefeller, but I'll buy."
After developing a slight buzz, she suggested a dance.
Dudley smiled and said, "I'm no Fred Astaire, but I'll give it a whirl."
Later, she suggested that they go up to her room. "I'm no Cary Grant," replied Dudley, "but I'll follow you up there." They leave and go to the lady's apartment. They have another drink, then do what had been on their minds all evening, anyway.
Afterward, the lady says, "What about some money?"
Dudley shot back, "Well, I'm no gigolo, but I'll take it!"

In the middle of a forest, there was a hunter who was suddenly confronted with a huge, mean bear. Full of fear, his attempt to shoot the bear was unsuccessful. He turned away and started to run as fast as he could. Finally, he ended up at the edge of a very steep cliff. His hopes were dim. But, he got on his knees, opened his arms and said, "My God! Please give this bear some religion!"
Then there was a lightning bolt in the air and the bear stopped a few feet short of the hunter. The bear had a puzzled look for a moment, and then looked up into the air and said, "My God! Thank you for the food I am about to receive."

Q. How do you know when it's time to wash dishes and clean the house?
A. Look inside your pants; if you see a penis, it's not time.

BEN



Rumours
Continued From Page 1

to the Amiga, but decided not to manufacture any Amiga computers. However it did transform its Amiga division into Amiga Incorporated which is continuing to develop the Amiga operating system. The latest Amiga OS is combined with special software that allows it to be adapted to any hardware platform. As Amiga OS is quite compact for its multimedia power, there has been renewed interest in it. Amiga Inc also provides a software development kit ($99) complete with all the necessary information about Amiga OS and a powerful computer language similar to Java.

That's what we need, a central focus, an Atari Incorporated that is devoted to further development of TOS and GEM and provides software development kits. Of course, TOS and parts of GEM have been reverse engineered to form Magic! the TOS replacement. It is still being developed and sold by ASH. There is also MiNT, a freeware TOS replacement that is updated by various enthusiasts from time to time. However I am not aware of any development kits for software programmers. These will be needed for the new TOS based computers, particularly when they move away from the obsolete Motorola 68000 series chips, as they must do someday.

The only new TOS computer on the horizon is the Milan II. It is definitely going with the Motorola 68060. Its specifications include USB output and PCI slots. The Milan II will use a Creative Labs sound card, an ATI Rage Pro graphics card (like the current Mac computers), and a standard ATX tower case. However there has been some consideration of a smaller version in a different case for sale in department stores. The latter version depends on getting the use of the Atari name from Hasbro. A large software collection will be supplied including the Magic Milan OS, NVDI with its printer drivers and fonts, an internet package (still being developed) Omikron BASIC, GNU C++ and Tempus Word 4.0 super word processor. The Milan comes with hard drive, CD and all the required device drivers. It is rumoured that SUSE will be adapting its Linux package for the Milan II, and Mac OS 7.5 is another alternative operating system. The Milan people argue that the 68000 series is not obsolete and that a modified version of the 68060 for embedded systems called "Coldfire" can run up to 200 MHz. Of course in its present form Coldfire cannot be used in the Milan II. Anyway, the latest version of the Milan II was presented at the Atari-Amiga expo held in Neuss Germany. Apparently the new Magic Milan OS involves a new system manager, a resolution switcher, glow icons and other goodies. Axro in Germany is the distributor of the Milan II, and I notice that Axro is now advertising for programmers. Axro is particularly interested in Music software as the Milan II will have a DSP board and MIDI option. There are rumours that the Milan II will be released in September at a base price of 1500 DM (about $1100 CDN). If the Milan II sells well there are plans for Milan computers with integrated TFT display and TOS compatible pocket organizers. I admire their enthusiasm.

While all the attention has been on the Milan II computer, the Swiss TOS clone called "Hades" has been developed further. Like the Milan, the Hades has the Motorola 68060 and now uses the Magic operating system. The Hades computer has a new motherboard supporting UtraSCSI and FastSCSI devices. It also uses the 8MB ATI Pro Rage graphics card with custom NVDI drivers. The price has been reduced to 2400 swiss francs (about $2100 CDN). The alternative to buying a TOS clone is enhancing an original TOS computer. There is a new accelerator called the Phantom for the Atari Falcon. By changing the computer clock, the speed of the Falcon's CPU and the main bus can be increased from 16MHz to 25MHz and the DSP circuit will run at 50 MHz. There are other overclocking cards for the Falcon that run even faster, however the slower speed of the Phantom ensures compatibility and stability. The Phantom also provides higher screen resolutions, higher refresh rates and easier handling of mp3 files. The Phantom is manufactured in the Czech Republic. The hardware and software package with a manual in English and Czech sells for 60DM (about $45 CDN).

Work is continuing on internet browsers. Dan Ackerman took time out from his work to fix a few bugs in his overlay software for CAB. Crystal Atari Browser is somewhat obsolete now. In particular it does not recognize Java script code used in many internet web pages. However, we are assured that a better browser named Highwire is under active development for TOS computers. I notice that Anodyne software, the maker of Extendos which allows any ST computer to access CD-ROM drives also has software called CD-Writer Suite for burning CD-ROMs. Tim Conrardy of Tim's Atari World has been active in acquiring and making older MIDI software available as freeware. He has announced five titles, namely the Ludwig Algorithmic Composer, TUNESMITH for the TT and Falcon, DXHeaven Caged Artist Editor, and other titles in the Caged Artist series, Tronds fix for MidiDraw and CopyiST. Recently Tim reported that he now has Midi Draw version 1.00 as freeware too.

Video editing and cutting is possible on TOS computers. FunMedia is video cutting software available as shareware for Falcon or Milan computers. It supplies a selection of video cutting effects and individual sequences can be altered with supplied drawing tools. Therapy Software has released an English version of Smurf. This is fast image file processor that can display files in a wide variety of image formats on TOS computers. Version 8 of Papyrus, the super word processor is also now available in English. But there is no paper manual. The publication costs could not be recovered for the small Atari market unless the price of Papyrus was increased considerably. However the publisher, ROM logicware in Berlin, has created an extensive help file in English. This help file is structured like a manual and can be printed. Francois Le Coat has released a new version of Persistence of Vision. This is 3D rendering software that now can work on 68060 TOS computers such as Milan and Hades.

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Rumours
Continued From Page 4

The annual Nordic Atari Show took place in Gothenburg, Sweden this year. It was reported to be well attended with many European ST software developers present. (They didn't mention the cloudberry ice cream this year.) I understand that Atari computers were also represented at the Alternative Party which just took place in Helsinki, Finland. This is a general meeting of all those interested in old or obsolete computers. It was organized this year by a local computer club and the computer science students at the University of Helsinki.

I have collected certain tag lines from news group postings, here are a few about nothing. "I started life with nothing, and I still have most of it left." "In a perfect world, nothing is perfect." "In the beginning there was nothing, which exploded."

Bill Gates Q&A

Q. How many Bill Gates's does it take to change a light bulb?
A. One. He puts the bulb in and waits for the world to revolve around him.

Q. How many Microsoft executives does it take to change a light bulb?
A. They can see no need for uninstallation and have therefore made no provision for light bulbs to be removed.

Q. How many Microsoft technicians does it take to change a light bulb?
A. Three. Two to hold the ladder and one to hammer the ~~bulb~~ into the fixture.

Q. How many Microsoft vice presidents does it take to change a light bulb?
A. Eight. One to screw in the bulb and seven to make sure that Microsoft gets $2 for every light bulb ever changed anywhere in the world.

GCACE MEETINGS

Emulators

The continuing saga of a PC computer that went to the dogs? Mmmm not quite. Gordon Hooper's PC does work from time to time, but it refuses to do anything with Gemulator 2000 (for heh heh heh ack ... Windows). Others among us have tried Gemulator 2000, and have also experienced vague cryptic announcements, the blank screen of confusion, the blue screen of death, anything but Atari ST emulation. I hesitate to proclaim Gemulator 2000 a crock because a few on the net have reported success with it, but many on the net have reported difficulties. Fortunately my PC laptop is too old to do Windows 95/98 and so I lowered my sights and tried Gemulator Classic for DOS. It worked! And so it came to pass that the topic for the April general meeting was "ST Emulators part two, Gemulator Classic". The gist of my demonstration is given in a separate article in the newsletter. At least it may be if the editor actually reads this far. (Editor's Note: HaHa.)

Flushed with success, I then demonstrated Atari 8-bit emulation using XFormer for PC (and DOS). XFormer for DOS uses a command line interface whereas XFormer for the ST uses a neat control panel, but the resulting emulation is much the same. Supplied with XFormer were disk images of 8-bit demos. I ran a few, they never fail to impress users of other computers. The DOS based XFormer can use the PC's printer port to access an Atari 8-bit disk drive just as it does on the ST. Thus one can have a laptop Atari 8-bit.

The May meeting featured another run at Gemulator 2000, but of course nothing happened. However there were lots of other topics to discuss. Cliff Bouvette brought a bunch of CD's of ST software he had obtained from an Atari enthusiast in New Zealand. This time we had the CD-ROM reader hooked up to the library ST and the contents of Cliff's treasures could be explored. Wow! Games, games, games,games and demos, millions of 'em, ST librarian Ted Skrecky was in ecstasy!

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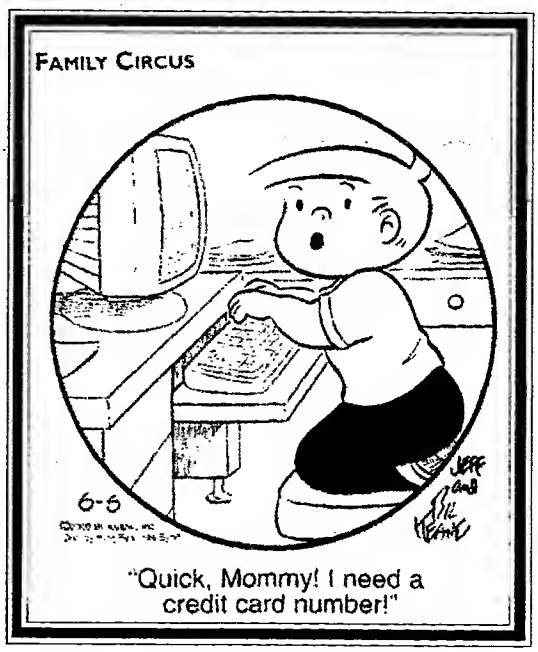

ST Emulation with TOSBOX

by Rowland Grant

TOSBOX is shareware by Mark Slagell. It enables a PC using DOS or windows to run Atari TOS and GEM application software. TOSBOX requires an image file of a ST operating system to function. An image of the ROM of any ST computer can be copied into a file using an ST program (ROMIMGE.TOS) supplied in the TOSBOX package. TOS images are-also available from various sources on the internet. Most of the programs in TOSBOX are .EXE files that run only on a PC of course. The best method is to create a subdirectory for TOSBOX on
the main hard drive of the PC and copy all the TOSBOX software into it, along with the TOS image file. I am using an image of TOS 2.06, which I recommend.

TOSBOX requires an initialization file. This is created by running SETUP.BAT, which directs the process. There is a scrolling question and answer system with explanations and prompts on the lower part of the screen. I am using a Toshiba T1900 monochrome notebook using a 20 MHz 80486 and 8 MB of RAM. I set the ST screen to monochrome, and the ST memory to 6MB. TOSBOX will provide up to 14MB for the ST under emulation. I left the blitter option off, set VT52 emulation off, set the printer to prn: flush, and the serial port to com1. The serial response can be shifted to a higher range of baud rates up to 115K baud. The physical disk drive is set as drive A:, of course. This drive will only read DOS formatted disks in double density or high density. There is a method for reading ST formatted disks, but more of that later. The current working directory on the PC is usually accessed using the drive C: icon on the GEM desktop. By using the TOSBOX subdirectory as the current working directory the PC main directory is isolated from the ST emulation and accidental deletions. Other drive letters can be mounted on the GEM desktop and these can be set to correspond to other subdirectories on the PC. On completion of the setup, the file TB.EXE is executed, the TOS image is loaded and the familiar GEM desktop appears.

TOS runs on my Toshiba, but it runs slowly. A study of emulators showed that one CPU emulating another is at best 30 percent efficient. A screen and mouse accelerator helps (I an using Warp 9 and Maccel). The author says that GFA BASIC will run if VT52 is off, so I tried a comparison of times for ten passes of the sieve of Eratosthenes in GFA BASIC. On a regular 8MHz ST this compiled file takes 10 seconds to run. On the Toshiba it takes 43 seconds. So I'm running TOS at less than one quarter normal speed. I suppose a 70MHz '486 PC should get close to ST speeds with TOSBOX. I find that occasionally a sudden mouse movement, the insertion of a disk, or even leaving a program will cause error bombs to appear, and TOSBOX must be rebooted. I suspect that this is due to the slow response of the emulation to certain input. I notice that one cause of lockups is moving the mouse while other devices are in operation. On examining the DOS/Windows mouse driver, I found that it had all sorts of elaborate features running. I turned them off, but there was little improvement. I guess TOSBOX can't rub its tummy and pat its head at the same time, at least not on my Toshiba.

TOSBOX is not a complete emulation of a ST, it is more of an alteration of DOS so that it can run ST software. The mouse driver must be installed by DOS, the clock must be set using DOS. The hardware is responding to DOS rather than TOS, so that it is not slowed particularly. TOS handles serial data poorly and must be patched to use the fast serial port rates available. HSMODEM or similar software should be put in the auto folder. TOSBOX will use a printer. However the print buffer is not flushed automatically unless prn:flush is chosen. If not chosen, a file smaller than the print buffer will not print, and must be flushed manually using the TOSBOX accessory.

TOSBOX will not handle software that addresses the ST hardware. Games are out, if only because TOSBOX does not provide for joysticks. Some items from my software collection responded with bombs when starting under TOSBOX. Fortunately Tempus 2 and GFA BASIC, programs that I use most frequently, run quite well. Tempus 2 is a very fast text editor on a regular ST, so it is still quite tolerable on the Toshiba. So far I have not found a text editor as suitable on the PC (or on the Mac for that matter). Up to now the Toshiba notebook has been used mainly as a means of transferring 8-bit disk images using SIO2PC, and transferring files to and from high density disks. Thus a further use for it is welcome.

At first I was hoping that we could use the Toshiba to copy Club Library disks at meetings. It is much easier to carry a notebook computer than an ST and monitor. Unfortunately TOSBOX will not oblige. A ST formatted disk can be read only by special software which seems to do a sector read, and writes to a special subdirectory on the hard drive. Under GEM, this subdirectory functions as a read only disk. This copying process never worked properly for me. The software in question

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APE'98 & ProSystem'98 Released

by Rowland Grant

Kevin Savetz reports that the Digital Antic Project has just been updated with eight new issues. The full text of 62 issues of *Antic* are now online. Most of these issues fall between 1983 and 1989, the peak period for Atari 8-bit development. The web site has a new section "Where are they now?" with information on Antic contributors. Sadly it notes that Matthew Ratcliff died last year. A petroleum engineer, he was also a very talented and prolific Atari 8-bit programmer and writer. He signed his ... Matt*Rat.

Steven Tucker has released APE'98 and ProSystem'98. APE'98 (Atari Peripheral Emulator) has been in preparation for quite some time. It makes a PC running Windows 95/98 into a peripheral for an Atari 8-bit. It is similar in function to SIO2PC but of course it benefits from continuing development.

Jeffery Jackson, the author of JLS BASIC for Atari 8-bit computers, reports that he has written a memory manager for an Atari 130 XE using JLS BASIC. The program swaps XL and XE memory so that two virtual machines are maintained. This seems to have some functions similar to John Picken's XL2. Jeffery complains that there have been only 32 downloads of JLS BASIC so far. This BASIC seems to be somewhat more elaborate than Turbo BASIC with special constructions for machine language handling.

Tom Hunt has released two Sparta DOS utilities that would be especially helpful for users of hard drives. These are RCOPY and RDELETE. RCOPY will copy in one operation all the files and subdirectories in a main directory. RDELETE will delete all files and subdirectories in a specified directory. Tom has also just released UnZip 1.0 for Atari 8-bit computers. It has been tested with Sparta DOS and MyDOS. UnZip supports "deflate" the most widely used compression method. UnZip did exist for the Commodore 64. Tom managed to port the assembler source code, changed all the memory equates, buffers and hardware addresses, and got it working on the Atari. If that was not enough, Tom has converted the Mystery Science Theatre text adventure game source code from the PC to Atari

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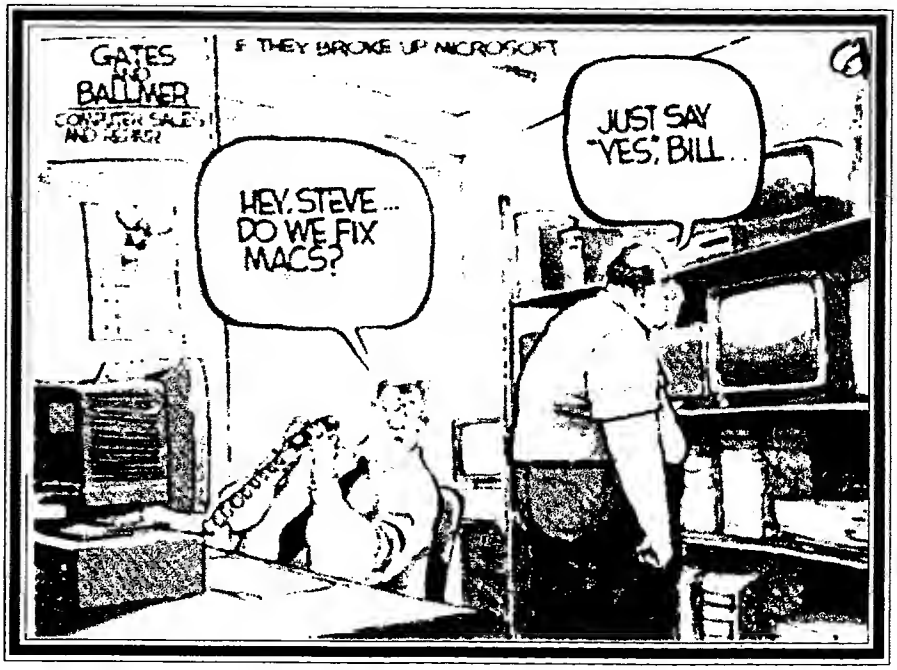
TOSBOX Continued From Page 6

is the TBC.ACC accessory provided with TOSBOX. The accessory runs a menu with provisions to pause emulation, reboot the ST, mount the ST floppy, fix-A-lineinfo (dunno what that does), flush printer queue, information on speed and video. and finally exit TOSBOX. Using this accessory sometimes resulted in bombx and lockups (carefulwith that mouse!). On one occasion it even caused a corruption of theTOSBOX file I had to replace the whole TOSBOX directory and initialize again to get TOSBOX to function (have that master disk handy). Rerunning SETUP.BAT to change the printer setting also resulted in corrupted files on one occasion. I changed numerous settings in my CONFIG.SYS file for DOS, with no noticeable improvement in the stability or speed of TOSBOX.

I have written this article using Tempus 2 on my Toshba running TOSBOX. Tempus 2 worked in the usual manner, but I saved the text often (and needed to). When returned to my Mega STe, I was impressed by the speed and stability of the real thing. I found TOSBOX easy to setup and use, but its slowness and instability on my computer has limited its value.



Atari Lives, Sort Of

by Doug Skrecky

My cyberbrother Ted lives over a major fault line in the Earth's crust, on a rain drenched island somewhere off in the Pacific Ocean. I decided to visit him recently, before the inevitable earthquake swallows up Ted, his awesome collection of computers, as well as the entire island he lives on. I don't expect that our esteemed editor, Gord Hooper will be meeting his maker in the upcoming deluge, because as everybody knows, empty vodka bottles float.

I was warned ahead of time to expect to see the brand name "Atari" in various retail mileus in the Victoria area. As a proud (rhymes with loud) owner of an Atari 520ST I was very much looking forward to this spectral experience, after having long since become virtually the sole remaining owner of a working Atari computer on the mainland.

There it was on a shelf at TOYS 'R US in Mayfair mall. Atari'sGreatest Hits CD for $24.99 including Asteroids, Asteroids Deluxe,Battlezone, Centipede, Crystal Castles, Gravitar, Millipede, Missile Command, Pong (Yes Pong!!), Super Breakout, Tempest, and Warlords. Hard to beat a great value like this, which even includes the first video game ever invented. Ironically the games work only on a Winblows PC. This isto be expected, since the ST versions, being so rare, have long since become collectors items for the elite. I'll have to run a PC emulator on my ST, and just hope the games do not run too fast.

As great as the value at TOYS 'R US was, my wallet decided to comparison shop before buying. It was at Electronic Boutique that my financial radar detected what proved to be an irresistible bargain. A 3C D set from Hasbro for $24.99, including single CD updated versions of Centipede and Frogger for Pentium 133's, and an Atari Arcade Hits CD, which had older games such as Asteroids, Centipede, Missile Command, Pong (Again!!), Super Breakout, and Tempest. Ka-ching, sold!

As I was leaving Electronic Boutique with its piles of ultra cheap computer game software I nearly tripped over a rut in the floor. Peering carefully at this I detected grooves that could only have made by my cyperbrother Ted on his frequent software feeding frenzies. Where is this store located? Its a secret known only to a few...

GCACE
Continued from Page 5

The June general meeting didn't even pretend to have a topic or demonstration. But there was lots of interesting computer discussion, advice and solace to members who are also Windows users, smug comment from members who are also Mac users, questionable humour, the usual.

8-Bit
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8-bit computers. These games are programmed in a common Z-code for all computers. Tom has supplied a Z-code interpreter which runs on Atari computers.

Janka Gerhard reports another device for connecting an Atari 8-bit to a VGA multisync monitor. This is a VGA-801-A device ($69 from Matco) that converts composite video to VGA. He reports that even the output of an Atari 800XL gives excellent images on a VGA monitor.

Lance Ringquist of Video61 mentioned that he sells large numbers of Atari XE computers with cartridge software for producing video notices in airports, hospitals and other public buildings. Some of these Atari computers have been running continuously for up to a decade with no problems. Eventually a power supply or key component will fail, but the computer unit or power supply can be replaced for little cost. Lance has been selling these units since 1983. Lance has the facilities for producing software cartridges for these units. Also I notice that he has put MyDOS 4.5 on cartridge as well as a number of games previously published in Analog Magazine.

Curt Vendel is proposing to make an interface that would allow an 8-bit Atari computer to use Atari ST external 3.5 inch floppy disk drives. The interface, called XE2ST will be inside an old SX212 or XEP80 case with the appropriate sockets and drive unit setting switches (1-4). Curt is proposing to do a run of 100 units at a price around $30-35. In one day Curt received more than a dozen positive responses, so he is going through with the project. Video 61 has offered to market the XE2ST interface. Ernest Schreurs noted that Erhard Puetz has been making similar interfaces for Atari 8-bit users in Europe. These interfaces use a 1.44 MB drive rather than the 720K or 360K drives available for the ST. Those lucky owners of the Black Box with Floppyboard have been using 3.5 inch high density disks for years. And if you don't mind using disk images, SIO2PC can give access to high density disks. Still, little new hardware is available for Atari 8-bit users in North America. And Curt's XE2ST interface would be very useful.

Die, Klingons!

by Ted Skrecky

Another update to the ST library has been completed. I have added 8 disks to the collection which brings us up to Disk #227. One thing you will notice is that a majority of the new material are graphic and music demos. I have always been interested in these types of demos so I have been downloading lots of them from the Internet. However, a majority of the demos I have looked at weren't overly impressive so I have only added to the library what I considered to be the best of the bunch.

One utility added to the library on Disk #220 is an accessory called AutoRaise. I have found it so useful I have put it on the boot partition of my hard drive so it automatically loads when the system boots. Normally, when you want to make the window your mouse is currently situated over the "active" window, you would have to click on that window. With Autoraise installed, whatever window your mouse is positioned over will automatically become the current window. I thought this utility was so cool I mentioned it at one of our past club meetings. Our Omnipotent Vice-President, John Picken, then stated that this utility is already in the GCACE ST library. I checked the catalogue and discovered it had been added to Disk #155 on September 3rd, 1994. Although I have been the ST Librarian since around Disk #30, I must say I have a real hard time remembering what I have added to the library over the years. However, I quite like this utility so I will let it be one of the few programs which has the honour of being available on two different GCACE disks.

Another program I have added to the update of the library is an ASCII text editor called 7UP. Bye the way, I did check our catalogue and was relieved to find that it was not already in the library. As far as text editors go, I still like Everest the most but 7UP is worth having a look at. One feature I discovered is the ability to add special characters to the text you are typing such the letter "u" which has the two dots above it. You can even select the four characters which, when combined, create the face of Bob, Supreme Leader of the Church of the Subgenius!

I was going to write a bit in this report about my purchase of an Amiga 2000 computer for $50 but I haven't had much time recently for doing any writing. Unfortunately, I have to keep going to work for five out of the seven days each week for the next 30 years or so which cuts into the time I can spend in front of my vast collection of computers. Also, while at home, my Intel machine always wastes a lot of my spare time. Although I only use the PC for playing games, I seem to spend less time playing games and more time trying to get the thing to work properly.

Recently, my PC was completely freezing itself to death for no apparent reason. Even doing Control-Alt-Delete would not help. I thought the problem had something to do with my CD-ROM drive. I reinstalled the drivers but that didn't help. I removed the CD-ROM drive and then connected it up again and that didn't work. I then removed the CD-ROM drive and put my old 4 speed CD-ROM drive in. The problem was still occurring so, obviously, there was nothing really wrong with the CD-ROM drive. I then thought that perhaps my video card or video drivers might be causing the computer to autonuke itself. I decided to reinstall Direct-X 7.0A and, amazingly, the system crashes stopped. I was then able to get back to playing Klingon Honour Guard.

Klingon Honour Guard is one of the 3D running down corridors and kill anything that moves types of game. This is the same type of game I have been playing for years and I never seem to get bored of the exact same game-play. Klingon Honour Guard has one weapon which I must say I rather enjoy using. It is a spinning disc which can be launched at an enemy and will do a fairly good job of chewing the guts out of him/her or it. However, I have learned it is important that you must still be holding the disc holder in your hand when the disc returns. There was one time I lost the disc holder and when the disc came back to me there was this huge, impressive-sounding explosion. In the area I had been standing in, the floor, walls and ceiling where covered with something that looked rather reddish.

Well, I have to go and kill some more Klingons now so I will finish this report by listing all the new material in the GCACE ST Library as follows:

7UP_209.LZH 125K #220-7UP Version 2.09d. English version of this German text editor.
AUTORAIS.LZH 4K #220-Accessory. Moving the mouse from one window to another window on the desktop will automatically cause the window the mouse is pointing on to become the active window (removes the need to manually click on the window).
CROSSFIR.LZH 39K #220-Nova Crossfire. ST version of an old 8bit game. Hit "1" key to start game. Mono Only.
ICONJUGL.LZH 26K #220-Lets you create your own set of icons for Atari's NewDesk.
MINE.LZH 17K #220-Mine Sweeper game for the ST. Low Rez only.
MONARCH.LZH 108K #220-Graphics & Sound Demo. Something very strange is about to happen somewhere near Portland, Oregon.
STOSSER.LZH 123K #220-The STOSSER Multimedia Displayer By Tony Greenwood. Has text mixed with graphics and animation along with music. Files should be placed in the main directory of a disk.

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UVK_BOOK.LZH 312K #220-The Ultimate Virus Killer Book Version 1.0. This is a Shareware version which has built-in 20 second delays.
2 DEMOS 1DSK #221-Foreign Affair is a very good Digi-Sound demo. It is sampled music of a tune done by Mike Oldfield. Also included on this disk is another demo (QURSCRN.PRG) which has a selection of music.
PUBTRO 1DSK #222-Pubtro demo. Features music & pictures.
OVERDOSE 1DSK #223-Overdose Demo. Contains music, pictures and some animation demos (some of which are quite good).
OVERDRIVE 1DSK #224-Overdrive Demo. Fly around a side-scrolling screen using keyboard, mouse or joystick (Keyboard is best) and find various demos to load. Hit reset to load an additional demo.
BLACK&WHITE 1DSK #225-Black & White Dentro. Contains lots of moving balls that travel in interesting patterns. Watch this for long enough and your mind will "zone-out".
VODKA 1DSK #226-Fly around the screen and shoot at various demos to load them. Drinking Vodka will enhance your enjoyment of the demos.
HI FI 1DSK #227-High Fidelity Dreams Demo. Contains a collection of music. Sell your stereo system and just listen to this stuff.

GCACE Financial

by John Towler

GCACE Financial Report
June 2000

Income	
Dues	40.00
ST+/PD disk sales	
Coffee	
Donations	
Interest	
Total Income	**40.00**
Expenses	
Newsletter printing	
Newsletter postage	
Other postage	
Room rental	
Coffee expenses	
Office supplies	
Magazine subscriptions	
ST+ printing	
ST+ royalties	
Service charge	.60
Total Expenses	
Monthly cash flow	**18.00**
Year-to-date cash flow	**-41.34**
Bank Balance	836.78
Prepaid room rental	107.00
Coffee float	5.00
Net Worth	**948.78**

Gemulator

by Rowland Grant

In the early days of ST computers, Darek Mihocka developed his XFormer Atari 8-bit emulator to run on a ST. This was quite an ambitious task since he had to create code that not only emulated the 6502 microprocessor but the special Antic, GTIA and POKEY hardware chips as well. He succeeded, and received flack from the Tramiels over it. XFormer went through several years of continuous development, and his experience led to more emulation projects. When PC computers began to use 32 bit microprocessors (80386, 80486 etc), Darek developed Gemulator, an Atari ST emulator that would run on a 32 bit PC. Gemulator was released as a commercial product. In order to avoid trouble from Atari, Darek did not emulate TOS ROM chips. Users of Gemulator were expected to find their own TOS ROMs. These could be inserted in a special card for the PC that Darek sold with the software. Later, Gemulator was modified to use MagiC, the software TOS replacement. The ROM board was no longer necessary. This made it possible for owners of PC notebook computers to use Gemulator, as these small computers seldom have room for a ROM board. I seem to remember a commercial release of Gemulator which included MagiC 4.0 for notebook computer users. The original versions of Gemulator were set up to run under MS-DOS and early versions of Windows. When Windows 95 arrived, a separate version of Gemulator was developed for Windows and the older DOS version was renamed Gemulator Classic. It is the most recent release of Gemulator Classic that I intend to review here.

Gemulator (in all its forms) is no longer a commercial product. It is available free from Emulators Inc. Gemulator Classic 3.80 was released two years ago. There has been no development since. However the source code for this software may be available eventually, and then others may be able to upgrade it. Gemulator Classic is designed for computers with less than 8MB of RAM and slower '386 or '486 processors. It can run under Windows in DOS emulation, but that is not recommended. Gemulator Classic 3.8 emulates an Atari ST computer on a PC and provides up to 8MB of Atari ST RAM. It supports versions of TOS from 1.0 to 2.06, KAOS TOS and MagiC. It can also use TOS image files. Gemulator Classic supports modems and printers attached to the PC. It can read some ST formatted floppy disks and all DOS formatted disks.

The Gemulator Classic package I downloaded from http://www.emulators.com contained ten files. Not all are needed. I created a C:\GEMUL\ subdirectory on the hard drive of my old Toshiba notebook (monochrome, 20MHz '486, 8MB RAM 120MB HD). Into this I copied GEMUL8R.EXE, GEMUL8R.INI, CDRIVE.VHD, DDRIVE.VHD, EDRIVE.VHD, FDRIVE.VHD and STHDBOOT.SEC. The file GEMUL8R.EXE is the Gemulator program. GEMUL8R.INI is the initialization file and should be edited in a text editor before using. All the .VHD files are virtual hard drives (also called disk images) that appear on the ST GEM desktop as hard drive partitions. These disk image files will expand to handle up to 32MB of ST data each. There is some overhead, so if you filled all of these virtual drives you might need more than 128 MB of hard drive space clear on the PC. Inmy download package, the CDRIVE.VHD was larger than the others, and had some software in it. In order to access these virtual drive partitions, driver software for the hard disk must run on the emulated ST. Emulators Inc kindly included the hard drive software (HDX ver 5.0) along with other programs in the ST drive C partition.

The GEMUL8R.INI file sets the options which configure Gemulator and it must be edited to suit your particular setup. The file explains itself fairly well, but there are some points to note. I set the serial port to COM1, the printer port to LPT1, the monitor to MONO and RAMSIZE 4 (ie. 4MB of RAM). The hard drive partition VHDFILE C: must be followed by the exact address of the disk image file which in my case is C:\GEMUL\CDRIVE.VHD. For VHDFILE D: it is C:\GEMUL\DDRIVE.VHD, and so on. Since I am using an image file of TOS 2.06, I turned off the PORT command and the INSTALL command. To load a disk based TOS image the exact location must be given. I removed the # before MAGIC C:\TOS.IMG and altered the command to MAGIC C:\GEMUL\TOS.IMG. All this done, the GEMUL8R.INI file was updated. Later I copied the TOS image into the C:\GEMUL\ subdirectory under DOS and renamed this image file TOS.IMG.

On running GEMUL8R.EXE a control screen appears with a prompt to type in a command. Before starting the emulation, type HELP. This gives a screen of commands. The first group of commands are the same as those in the .INI file. If you wish, you can change the initialization settings of Gemulator before proceeding. Typing G at the prompt runs the emulation. Two commands used when TOS is running are Control+F12 which resets

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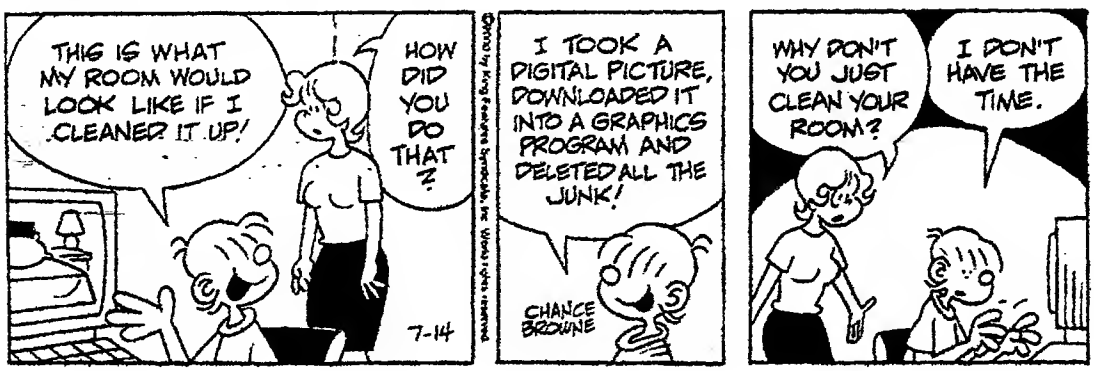
and reboots TOS, and Control+F11 which stops the emulation and returns to the Gemulator control screen. Type QUIT at the command line prompt, and the system returns to MS-DOS.

So I ran GEMUL8R and typed G at the prompt. The TOS image file loaded and the TOS 2.06 fuji symbol appeared, followed by the familiar GEM desktop. The mouse and screen response seemed about normal for a standard ST, however I went to partition C:, which seems to be the boot partition, and installed a screen and mouse accelerator anyway. The C: partition contained GEMBENCH and QINDEX22 programs for testing ST computers. I ran them, and the results suggested that Gemulator on my system emulated a standard ST better in many regards than the real thing. To get a simpler picture, I tried GFA BASIC and ran my usual Sieve of Eratosthenes test. On a standard 8 MHz ST this program runs in 10.4 seconds. On my Toshiba notebook it took 12.5 seconds. This is the same as a ST running at 6.5 MHz, and for a 20 MHz PC indicates about 33 percent efficiency. I tried another version of the Sieve compiled using Prospero C. This gave 8.0 seconds on a ST and 8.2 seconds on the Toshiba, or 38 percent efficient. Whatever it really is, Gemulator's speed is probably close to theoretical limits. Not bad at all.

Not only is Gemulator fast, it seems to be stable too. I seldom experience bombs or lockups. However, Neodesk's screen saver caused a bus error (two bombs) on occasion. So far, all the software that runs on my STe seems to run almost as well under Gemulator. Of course the Toshiba notebook hardware does not respond quite like my ST. For instance, I must turn the printer on before the computer, and if I turn the printer off while my computer is running Gemulator locks up. The Toshiba's disk drive can handle standard formats, but it didn't like our Club library's 800K disks with the extra sector per track. Formatting disks is possible from the desktop. In my case, I found that I could not format a floppy disk until I had definitely called the Toshiba's attention to it by getting the directory. Our popular copy program, Fastcopy, would duplicate single and double sided disks in standard format only. It tried hard to copy an 800K disk but the Toshiba wouldn't cooperate. Fast copy would not format either unless I first called the directory. However it then was able to format 800K disks! Under Neodesk and TOS 2.06, I can read and write to high density disks (1.44MB). This has been very handy. Gemulator does not properly detect a change of disk in drive A: on my computer. To get the new directory after changing a disk, I must force the issue by accessing the new disk using the drive B: icon. Of course it could be a hardware problem. Other PC computers with different disk drives might be able to detect a disk change properly.

The notes on the Emulators Inc web site mention that Gemulator Classic is not Y2K compliant. Right! Gemulator accesses my computer's clock signals. These give the correct day and year under MS-DOS, however the Atari emulation gives the year 2028. Not serious, but annoying. I attached a modem to the Toshiba and ran Interlink terminal program. The modem responded and dialled out, however I was unable to receive after I had made a connection. As a test I used the same modem and Interlink with my Mega STe, and made proper connections. Of course the fault may not be with Gemulator. There are so many variables with the hardware and software. I'll keep struggling.

Compared to TOSBOX, Gemulator Classic is fast and stable. Gemulator allows my Toshiba notebook to serve as a practical substitute for an ST. I use it often. The failure to detect floppy disk changes and the Y2K noncompliance are minor annoyances in what is otherwise a good product.

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